



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0250; Directorate Identifier 2016-NM-158-AD]

RIN 2120-AA64

Airworthiness Directives; Empresa Brasileira de Aeronautica S.A. (Embraer)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Empresa Brasileira de Aeronautica S.A. (Embraer) Model EMB-135ER, -135KE, -135KL, -135LR, -145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP airplanes. This proposed AD was prompted by a report of airplanes with modified gust lock levers that prevented the thrust lever's full excursion, thus limiting the engine power. This proposed AD would require replacing a certain gust lock lever. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Empresa Brasileira de Aeronautica S.A. (Embraer), Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170 - Putim - 12227-901 São Jose dos Campos - SP – Brasil; telephone +55 12 3927-5852 or +55 12 3309-0732; fax +55 12 3927-7546; email distrib@embraer.com.br; Internet <http://www.flyembraer.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0250; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1175; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2017-0250; Directorate Identifier 2016-NM-158-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

The Agência Nacional de Aviação Civil (ANAC), which is the aviation authority for Brazil, has issued Brazilian Airworthiness Directive 2016-07-01, dated July 18, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the

MCAI”), to correct an unsafe condition for certain Empresa Brasileira de Aeronautica S.A. (Embraer) Model EMB-135ER, -135KE, -135KL, -135LR, -145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP airplanes. The MCAI states:

ANAC was informed about occurrences in which airplanes that incorporated SB 145-27-0115, which changes the Gust Lock lever format, managed to takeoff, or performed [rejected take-offs] RTOs, in such a configuration that the Gust Lock lever prevented the thrust levers full excursion, thus limiting the engine power to about 70% of the nominal takeoff power. Analyses and simulations conducted by the manufacturer confirmed this as a possible scenario in case some verification procedures prior to and during takeoff, for whatever reason, are not properly performed. After evaluation, the conclusion was that the incorporation of SB 145-27-0115 would take away an important tactile cue regarding the thrust levers position, which, in a timely manner, would alert the crew of an improper takeoff configuration. During takeoffs, or attempts thereof, in such condition, the airplane would have a reduced performance, which would increase the required takeoff distance or the RTO distance, and reduce the airplane capacity to clear obstacles.

Since this condition may occur in other airplanes of the same type and affects flight safety, a corrective action is required. Thus, sufficient reason exists to request compliance with this [Brazilian] AD in the indicated time limit.

Required actions include replacing a certain gust lock lever. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0250.

Related Service Information under 1 CFR part 51

We reviewed Embraer Service Bulletin 145-27-0126, dated October 6, 2015. The service information describes procedures for replacement of a certain gust lock lever for one with an alternative format.

We have also reviewed Embraer Service Bulletin 145-27-0115, Revision 03, dated October 5, 2015. This service information describes procedures for modifying involving replacement of the gust lock lever with a new gust lock lever enabling both engine thrust levers to be advanced at the same angle as that of the electromechanical gust lock lever.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

Costs of Compliance

We estimate that this proposed AD affects 668 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$56,780

We estimate the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need this replacement:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement	1 work-hour X \$85 per hour = \$85	\$6,315	\$6,400

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Empresa Brasileira de Aeronautica S.A. (Embraer): Docket No. FAA-2017-0250; Directorate Identifier 2016-NM-158-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Empresa Brasileira de Aeronautica S.A. (Embraer) Model EMB-135ER, -135KE, -135KL, -135LR, -145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight controls.

(e) Reason

This AD was prompted by a report of airplanes with modified gust lock levers that performed take-offs or rejected take-offs (RTOs), in such a configuration that the gust lock lever prevented the thrust lever's full excursion, thus limiting the engine power to about 70% of the nominal take-off power. We are issuing this AD to prevent incorrect configuration of the gust lock lever, which could reduce the airplane's performance

during take-offs or attempted take-offs, increase the required take-off distance or the RTO distance, and reduce the airplane's capacity to clear obstacles.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection

Within 5,000 flight hours or 24 months after the effective date of this AD, whichever occurs first: Check the airplane maintenance records to determine whether the actions specified in Embraer Service Bulletin 145-27-0115 have been done. If the records review is inconclusive, inspect the engine control box assembly against the Accomplishment Instructions of Embraer Service Bulletin 145-27-0115, Revision 03, dated October 5, 2015, to determine whether the actions specified in Embraer Service Bulletin 145-27-0115 have been done.

(h) Corrective action

If the check or inspection required by paragraph (g) of this AD indicates that the actions in Embraer Service Bulletin 145-27-0115 have been done: Within 5,000 flight hours or 24 months after the effective date of this AD, whichever occurs first, replace the gust lock lever, in accordance with the Accomplishment Instructions of Embraer Service Bulletin 145-27-0126, dated October 6, 2015.

(i) Acceptable alternative

Reversion of the airplane to a pre-modification condition (configuration before incorporating Embraer Service Bulletin 145-27-0115), within the compliance times specified in paragraph (h) of this AD, in accordance with a method approved by the

Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the Agência Nacional de Aviação Civil (ANAC); or ANAC's authorized Designee, is acceptable for compliance with paragraph (h) of this AD.

(j) Prohibited Modification

As of the effective date of this AD, do not accomplish the actions specified in Embraer Service Bulletin 145-27-0115 on any airplane.

(k) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1175; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method

approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or ANAC; or ANAC's authorized Designee. If approved by the ANAC Designee, the approval must include the Designee's authorized signature.

(I) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Brazilian Airworthiness Directive 2016-07-01, dated July 18, 2016, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0250.

(2) For service information identified in this AD, contact Empresa Brasileira de Aeronautica S.A. (Embraer), Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170 - Putim - 12227-901 São Jose dos Campos - SP – Brasil; telephone +55 12 3927-5852 or +55 12 3309-0732; fax +55 12 3927-7546; email distrib@embraer.com.br; Internet <http://www.flyembraer.com>. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on April 11, 2017.

Dionne Palermo,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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